

**Notice of Allowability**

Application No.

09/423,414

Applicant(s)

SMITH ET AL.

Examiner

Art Unit

George Eng

2643

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/7/2004.
2. ☒ The allowed claim(s) is/are 1-7,9-19 and 21.
3. ☒ The drawings filed on 15 December 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

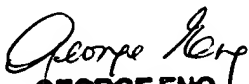
\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**GEORGE ENG**  
**PRIMARY EXAMINER**

## EXAMINER'S AMENDMENT AND STATEMENT OF REASONS FOR ALLOWANCE

### *Examiner's Amendment*

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Irving M. Weiner (Reg. No. 22,168) on 1/28/2005.

2. The application has been amended as follows:

1. (Currently Amended) A teleconferencing robot, for enabling a remote conferee to project a sense of presence into a group meeting, the teleconferencing robot comprising:

a base comprising an upper stage and a lower stage and wherein the lower and upper stages are rotatable relative to one another about a substantially vertical axis;

one and only one video monitor is secured to the upper stage and the upper stage is rotatably mounted to the lower stage, said video monitor receiving and displaying a life-sized image of the remote conferee's face;

[the base includes means for vertically displacing the upper and lower stages relative to one another;]

a video camera movably mounted on the base;

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control means mounted on the base for moving the video monitor secured to the upper stage and the video camera in response to an input control signal;

a sound location system for generating a speaker location signal in response to which the control means can automatically swivel said video monitor with said image of the remote conferee's face to look at another conferee speaking in an automatic mode;

and wherein said upper stage to which said video monitor [is secured] and said video camera are secured is moved [move] in response to one of said input control signal to enable the remote conferee to project a sense of presence into the group meeting in a manual mode, and the speaker location signal generated by said sound location system in the automatic mode [including automatically swivelling said video monitor with said image of the remote conferee's face to look at another conferee speaking at said group meeting].

15. (Currently Amended) A teleconferencing robot as claimed in claim 5, further comprising microphone array means for enabling a location of a speaker to be determined and generating a detection signal indicative of the location of the speaker wherein the [input control] speaker location signal is derived from the detection signal and causes the rotating drive unit to rotate the video monitor to a position substantially facing the location of the speaker.

16. (Currently Amended) A teleconferencing robot as claimed in claim 15, further comprising a switch unit enabling the input control signal to be selectively derived from the [detection] speaker location signal and a remote signal generated by the remote conferee.

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19. (Currently Amended) A teleconferencing robot as claimed in claim 5, [further comprising] including that:

[location determining means for enabling a location of a person to be determined and generating a detection signal indicative of the location of the speaker;]

[wherein] the sound location system [determining means] is fixed to the base such that the video camera and the video monitor rotate independently of the sound location system [determining means]; and

wherein the input control signal is derived from the [detection] speaker location signal and causes the rotating drive unit and pan drive unit to rotate the video monitor and video camera, respectively, to a position substantially facing the location of the speaker.

21. (Currently Amended) A teleconferencing robot for enabling a remote conferee to project a sense of presence into a group meeting, said remote conferee located remotely from said group meeting, the teleconferencing robot comprising:

a base comprising an upper stage and a lower stage and wherein the lower stage and upper stage are rotatably related to one another about a substantially vertical axis;

one and only one video monitor secured to the upper stage and video monitor secured to the upper stage and movably mounted to the lower stage, said video monitor receiving and displaying a life-sized image of the remote conferee's face;

the base includes means for vertically displacing the upper and lower parts relative to one another;

a video camera;

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control means including a rotating drive unit for rotating the upper stage containing the video monitor relative to the lower stage in response to an input control signal derived from the remote signal generated by the remote conferee;

a sound location system for generating a speaker location signal in response to which control means can automatically swivel said video monitor with said image of the remote conferee's face to look at another conferee speaking in an automatic mode;

and wherein said video monitor moves in response to one of said input control signal to enable the remote conferee to project a sense of presence into the group meeting in a manual mode, and a speaker location signal generated by said sound location system in the automatic mode [including automatically swivelling said video monitor with said image of the remote conferee's face to look at another conferee speaking at said group meeting].

22. (New) A teleconferencing robot as claimed in claim 3, wherein the base comprises an upper part on which the video monitor is mounted and a lower part, and means for vertically displacing the upper and lower parts relative to one another.

(Note the claimed limitations of new claim 22 are the same as claim 8, which is previously canceled.)

***Examiner's Statement of Reasons for Allowance***

3. Claims 1-7, 9-19 and 21-22 are allowed.

4. The following is an examiner's statement of reasons for allowance:

Applicant's invention is drawn to an apparatus for the projection of a remote conferee's presence into a group meeting environment by using a combination of videoconferencing and robotics technology, which allows for more direct personal interaction in group meeting environments and social situations.

Applicant's independent claims 1 and 21 each recite, *inter alia*, a teleconferencing robot with a structure as defined in the specification (pages 5-14) including a base comprising an upper stage and a lower stage and wherein the lower and upper stages are rotatable relative to one another about a substantially vertical axis, one and only one video monitor is secured to the upper stage and the upper stage is rotatably mounted to the lower stage, said video monitor receiving and displaying a life-sized image of the remote conferee's face, control means mounted on the base for moving the video monitor secured to the upper stage and the video camera in response to an input control signal, a sound location system for generating a speaker location signal in response to which the control means can automatically swivel said video monitor with said image of the remote conferee's face to look at another conferee speaking in an automatic mode, and wherein said upper stage to which said video monitor and said video camera are secured is moved in response to one of said input control signal to enable the remote conferee to project a sense of presence into the group meeting in a manual mode, and the speaker location signal generated by said sound location system in the automatic mode. Applicant's claims 1 and 21 comprise a particular combination of element, which is neither taught nor suggested by the prior art.

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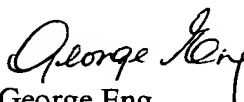
Accordingly, Applicant's claims are allowed for these reasons and for the reasons recited by Applicant in Amendments filed 8/30/2002, 3/17/2003, 12/15/2003 and 8/23/2004.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Eng whose telephone number is 703-308-9555. The examiner can normally be reached on Tue-Fri 7:30 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A. Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
George Eng  
Primary Examiner  
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